

WHAT IS CLAIMED IS:

1. Printing apparatus for printing relatively small, light objects including medical tablets (6), having a certain brittleness and/or porosity comprising a movable print head (25), a printing liquid tank (30), and a conveyor unit (32) supplying and discharging the objects to be printed (6) to, respectively from the print head (25), wherein the print head (25) is arranged in a linear pad printing system with a closed ink system wherein said printing liquid tank (30) being arranged with said conveyor unit (32) including a rotating table (14, 17) having predetermined locations (24; respectively 24', 24'') for receiving temporarily the objects (6) during the printing stage.

2. Printing apparatus according to claim 1, wherein said rotating table is comprised of a table plate (14) having a high smoothness whereupon a set of segments (17) is provided which are able to float at a small height (38) over said table plate (14), wherein said table plate and segments are plane.

3. Printing apparatus according to claim 2, wherein said segments (17) are provided with holes (24) which are realized in the segments (17) wherein said objects to be printed (6) fit so that their bottom side can get into contact with said table plate (14).

4. Printing apparatus according to claim 2, wherein said segments (17) are removable and mutually changeable, thereby having holes (24) with different size and shape, which are adapted to the objects to be printed, wherein said holes (24) are arranged according to a predetermined pattern (24', 24'') in each segment (17).

5. Printing apparatus according to one of the claims 2, wherein said segments (17) are comprised in a disk/(24', 24''), wherein the segments are mutually adjacent two by two and/or radially separated from each other.

6. Printing apparatus according to claim 2, comprising a supply unit (20) provided wherein the objects (6) to be printed are stocked for being supplied on said rotating table, wherein a set of brushes are arranged in a brush casing (21) which are provided at the outlet

aperture of the supply unit (20) and streaming downwardly therefrom, so that they can work as object separators over the segments (17) for a substantially complete occupation of the holes (24) therefrom.

7. Printing apparatus according to claim 6, comprising a blow unit (22) arranged streaming downwardly from the brush casing (21) for blowing away waste objects to a receiving unit (23).

8. Printing apparatus according to claim 1, comprising a drying station (26) provided streaming downwardly from the moveable print head (25) for drying the printed objects (6).

9. Printing apparatus according to claim 2, comprising a vacuum chamber (28) provided under the rotating table (14, 17) at the printing head (25) for holding the objects (6) during the printing operation by means of small holes (39) in the table plate (14) provided therefor.

10. Printing apparatus according to claim 9, wherein said vacuum aperture is arranged substantially centrally respective to the corresponding holes (24) for the objects (6) to be printed.

11. Process for printing objects, in particular medical tablets, comprising a pad printing head (31) that starts from the starting position (A), wherefrom the pad printing head (31) is moved downwardly to take over a quantity of printing liquid, in particular ink, from a plate (33) in an ink take-over position (B), after which the pad printing head (31) loaded with ink is moved upwardly again into position (A), after which the pad printing head (31) with the image take-over is moved forwardly until above the object to be printed (6) in segment (17), wherein the ink tank (30) is also moved simultaneously in the same direction forwardly so as to ink the image in the plate (33) again,

after which the pad printing head (31) is moved downwardly to the object to be printed and deposits thereon the image taken over,

after which the pad printing head is moved again in its initial position (A) just like said ink tank (30).